

Abstract of the Disclosure

5 A channel allocation (FA) system for use in a wireless communication system includes a controller, d number of combiners, d number of switchable power divider/combiners and d number of switches. The FA system allocates FAs to N number of sectors of a base transceiver station. In the system, the controller groups N sector into M small groups and determining d and f, wherein N and M are positive integers and d and f are 10 the number of dynamic FAs and the number of fixed FAs, respectively. The combiners combine the dynamic and the fixed FAs for said each small group and output d number of signals. The switches selectively connect the output signals to the switchable power divider/combiners, whereby the switchable 15 power divider/combiners amplify signals inputted thereto at the same level in amplitude. Although the BTS switchably shares the dynamic FAs at each of the sectors, its service coverage area does not change because the final output power level of each FA is the same in amplitude. Therefore, both 20 the number of total FAs allocated to the BTS and the related devices can be reduced without changing its service coverage area.